sample collection unit **12**, is not (fully) transferred to the sample analysis unit **18**. In FIG. **5**, the sample extraction unit **14** can move freely inside the housing **16** due to the fact that the sample extraction unit **14** is flexibly mounted inside the housing **16**. In FIG. **6**, the sample extraction unit **14** together with the housing **16** can move independently from the sample analysis unit **18** due to the fact that the sample analysis unit **18** is flexibly mounted inside the housing **16**.

[0051] The flexible mounting of the sample extraction unit **14** in the housing **16** in FIG. **5** or the sample extraction unit **18** in the housing **16** in FIG. **6** does not have to be fluid-tight and may be achieved in any suitable manner, e.g. using metal springs or an elastomeric suspension.

[0052] The flexible mounting **30** between the sample extraction unit **14** and the sample analysis unit **16** shown in FIG. **5** and FIG. **6** needs to be fluid-tight. This can also be achieved using a suitable elastomeric suspension.

[0053] An example of a suitable elastomeric suspension is shown in FIG. **7**. The elastomeric suspension comprises a first rubber ring **42** into which the sample analysis unit **18** is fitted and a second rubber ring **42'** mounted on the inner wall of the sample extraction unit **14**. The rubber rings **42** and **42'** are spaced apart by a flexible, e.g. rubber membrane **40**. As will be appreciated, the elastomeric suspension shown in FIG. **7** ensures a fluid-tight fit of the part of the disposable cartridge **10** that is suspended in the housing **16**, e.g. the sample extraction unit **14** and the sample analysis unit **18**.

[0054] In FIGS. **5** and **6**, the disposable cartridge **10** is shown in an inserted position into the sample analyzer **50**. The sample analyzer **50** may comprise engagement means to clamp or grip the inserted part of the disposable cartridge **10** to further improve the robustness of the fixation of the sample analysis unit **18** with respect to the (optical) read-out means of the sample analyzer **50**. For instance, FIGS. **5** and **6** show mechanical references **52** and **54** that form a part of the sample analyzer **50**. The mechanical reference **52** is designed to support the housing **16** of the disposable cartridge **10** and the mechanical reference **54** is designed to support the sample analysis unit **18** when inserted into the sample analyzer **50**. This will be explained in more detail below.

[0055] FIG. **8** shows a detail of an embodiment of a disposable cartridge **10** of the present invention. In this embodiment, the sample analysis unit **18** comprises a carrier that is inserted into a pair of inner grooves **26** in the housing **16** of the disposable cartridge **10**. As is shown in FIG. **9**, the carrier may comprise click pads **32'** for fixating the position of the sample analysis unit **18** inside the housing **16**. To this end, the housing **16** may comprise recesses **32** for receiving the click pads **32'**. The carrier may further comprise protrusions **26'** for guiding the carrier in the inner grooves **26**. The inner grooves **26** may be wider than the thickness of the carrier of the sample analysis unit **18** such that the sample analysis unit **18** can move freely inside the grooves **26** within the tolerances defined by the additional width of these grooves. In this embodiment, the recesses **32** should also be larger than the click pads **32'** to facilitate this limited degree of free movement of the sample analysis unit **18** inside the housing **16**. It is preferable that the free movement of the sample analysis unit **18** is restricted within predefined tolerances (i.e. the grooves **26** preferably should not be omitted) because unrestricted free movement of the sample analysis unit **18** may make its placement inside the sample analyzer **50** cumbersome. This embodiment may be combined with mounting the sample analysis unit **18** inside the housing **16** using a flexible mounting member such as the aforementioned flexible suspension.

[0056] In FIG. **8**, the housing **16** of the disposable cartridge **10** further comprises an evaluation window **34** for allowing evaluation of the sample analysis unit **18** by the sample analyzer **50**, as well as a pair of mating members **36** (only one is shown in FIG. **8**) for engaging with respective complementary mating members of the sample analyzer, e.g. ball bearings **62** (vide infra). In FIG. **8**, the mating member **36** is shaped as a shallow trench in the outer surface of the housing **16** by way of non-limiting example only; it should be appreciated that other embodiments are equally feasible.

[0057] Preferably, the sample analyzer **50** is adapted to engage with the housing **16** and/or the sample analysis unit **18** to secure the fit of the disposable cartridge **10** in the sample analyzer **50** such that the risk of unwanted displacement leading to misalignment of the sample analysis unit **18** with respect to the read-out means of the sample analyzer **50** can be reduced or eliminated.

[0058] FIG. **10** shows an embodiment of the sample analyzer **50** in accordance with the present invention. The sample analyzer **50** has a chamber **60** for receiving the disposable cartridge **10**. The chamber **60** has a tapered shape or a tapered inlet **65** for guiding the sample analysis unit **18** of the disposable cartridge into its intended position inside the chamber **60**. The inner walls of the chamber **60** comprise a pair of mechanical references in the form of spring-loaded ball bearings **62**. The respective springs push the ball bearings **62** into the chamber **60**. Upon insertion of the disposable cartridge **10** into the chamber **60**, the ball bearings are pushed back into the walls of the chamber **60** by the housing **16** until the ball bearings **62** meet with their respective mating members **36** in the outer surface of the housing **16**. In this engagement, the ball bearings **62** click into place into the mating members **36**, e.g. shallow trenches, thus fixating the housing inside the sample analyzer **50**. The flexible mounting of the ball bearings **62** is chosen such that the disposable cartridge **10** can be ejected from the sample analyzer **50** without requiring excessive force, i.e. by a gentle pull, which releases the ball bearings **62** from their corresponding mating members **36** in the outer surface of the housing **16**.

[0059] As shown in FIG. **10**, the chamber **60** may optionally comprise a support member **54** for supporting the end portion of the sample analysis unit **18** facing the support member **54** when the disposable cartridge **10** is inserted into the sample analyzer **50**. Such a support member may for instance be a flat surface for receiving the sample analysis unit **18**. FIG. **11** shows a cross-section of the chamber **60** comprising the support member **54** as seen through the inlet **65**. A similar support member **52** may be present for supporting the housing **16**.

[0060] Upon the correct insertion of the disposable cartridge **10** into the chamber **60** of the sample analyzer **50**, the sample analysis unit **18** will come to rest on the support member **54**, thereby increasing the stability of the fit of the disposable cartridge **10** inside the sample analyzer **50**. This fit may further be stabilized by a pressure roll pressing the sample analysis unit **18** down onto the support member **54**.

[0061] This is shown in more detail in the cross-section of the sample analyzer **50** shown in FIG. **12**. The pressure roll **56** is flexibly mounted by a spring **58** inside a slit **57**. In rest, the pressure roll rests on the support member **54**. Upon insertion of the disposable cartridge **10** into the chamber **60** as indicated by the dashed arrow, the sample analysis unit **18** is wedged in between the pressure roll **56** and the support member **54**, thus pushing the pressure roll **56** into the slit **57** thereby compressing the spring **58**. Consequently, the pressure roll **56** exerts pressure onto the sample analysis unit **18** through the partially compressed spring **58**, thereby helping